UNITED STATES PATENT AND TRADEMARK OFFICE

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10/748,030	12/29/2003	Michael A. Rothman	42P18120	6795

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/748,030	ROTHMAN ET AL.
	Examiner	Art Unit	
	Tuan A. Vu	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>29 December 2003</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-30* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-30* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>29 December 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to the application filed 12/29/03.

Claims 1-30 have been submitted for examination.

Specification

2.   The disclosure is objected to because of the following informalities: the packet header

referred to as "OPT" is mentioned in pg. 7-8 and Fig. 3-4; and as termed, the language is not

sufficiently conveying the accepted meaning of what normally constitutes a network packet as

this has been established as well-known in network protocol. And this above language needs to

be adjusted in the Specifications so that such OPT network packet being parsed would be

perceived as being implemented in a way different from standard TCP/IP packet configuration,

e.g. implementation based on the C++ or OO language constructs for this 'packet' in a sense that

the packet is a mere distributed software package (emphasis added – see Disclosure para 0003,

bottom), hence no longer infringing on the standard TCP/IP packet connotation. The claim

language referring to this 'network packet' will be treated with the information provided from

the above confusing language, and interpreted accordingly.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

4.   Claims 4-5, 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

Claim 4-5, 17 recite the limitation "optimization library" in line 3, line 2, line 5,

respectively. There is insufficient antecedent basis for this limitation in the claim and will be

treated as a library as recited in the base claim.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 1-3, 12-16, 20-21, 23-30 are rejected under 35 U.S.C. 102(e) as being anticipated

by Patankar et al., USPubN: 2005/0021971(hereinafter Patankar).

As per claim 1, Patankar discloses a method, comprising:

receiving an optimized library via a network (para 0020, pg. 2; para 0026, pg. 2; Fig. 2;

reducing ... overhead, thereby reducing ... any hindrance - para 0032, pg. 3; *DLL ... drives the*

hardware – para 0033, pg. 3; BDLL - Fig. 5), the optimized library including at least one

optimized routine (e.g. para 0033, pg. 3; *continually updated* – para 0045; routine – para 0062,

pg. 6; Fig. 5 – Note: code with reduced size and continually updated reads on code being

optimized) for a processing system; and

providing the optimized routine for use by an application executing on the processing

system to interact (para 0036-0037, pg. 4; *DLL ... drives the hardware* – para 0033, pg. 3)with a

hardware entity of the processing system.

As per claim 2, Patankar discloses updated code for use by the application to increase interaction efficiency (e.g. para 0032, pg. 3; para 0045, pg. 4 – Note: continual updates from providers and reduced size of download reads on increased efficiency of processing system) with the hardware entity of the processing system.

As per claim 3, Patankar discloses receiving the optimized library via the network during an operating system ("OS") runtime of the processing system (para 0033, pg. 3; para 0036-0037, pg. 4).

As per claim 12, Patankar discloses a management module of a rack of blade servers (e.g. para 0023,pg. 2; para 0037, pg. 4; Fig. 1), and further comprising forwarding the optimized library to one or more of the blade servers via an out-of-band channel (Fig. 1).

As per claim 13, Patankar discloses a machine-accessible medium that provides instructions that, if executed by a machine, will cause the machine to perform operations comprising:

identifying that an optimized library transmitted over a network is intended for the machine, the optimized library including at least one optimized routine for interacting with a hardware entity of the machine (para 0020, pg. 2; para 0026, pg. 2; Fig. 2; *reducing ... overhead, thereby reducing ... any hindrance* - para 0032, pg. 3; *DLL ... drives the hardware* – para 0033, pg. 3; BDLL - Fig. 5; para 0033, pg. 3; *continually updated* – para 0045; routine – para 0062, pg. 6; Fig. 5);

receiving the optimized library via the network; and advertising (e.g. Fig. 2, 6; para 0023, pg. 2 – Note: use of blade servers to communicate organization or groupware code/data for application use according to a user-restricted policy reads on advertising what application is to be

imported for the application by users in such organization) the optimized routine for use by an

application executing in a user mode space of the machine to interact (para 0036-0037, pg. 4 ;

DLL ... drives the hardware – para 0033, pg. 3)with the hardware entity.

As per claims 14-15, refer to claims 3, 2 respectively.

As per claim 16, see Figs. 1, 6.

As per claim 20, Patankar discloses processing system, comprising: a processor; a

network link communicatively coupled to the processor (e.g. Fig. 1, 6); and a storage device

communicatively coupled to the processor, the storage device including instructions which when

executed by the processor perform operations, comprising: monitoring traffic (e.g. modem 656,

NW adapter 654 – Fig. 6 – Note: any NW adapter or modem reads on monitoring of packets

transmission at socket layer) on the network link

for an optimized library including at least one optimized routine intended for the

processing system; receiving the optimized library via the network link (refer to claim 13 for

corresponding rejection); and

advertising the optimized routine to a user mode space (refer to claim 13) of the

processing system for use by an application to interact with a hardware entity of the processing

system.

As per claims 21, 23, 24, 25, refer to claims 3, 11 (see Patankar: *loading* – para 0006, pg.

1; Abstract), 16, 2.

As per claim 26, Patankar discloses a system, comprising: a chassis having a plurality of

slots to receive a plurality of blade servers (refer to claim 12); and

a management module mounted to the chassis and communicatively coupled to each of

the plurality of slots to communicate with the plurality of blade servers,

the management module to receive an optimized library via a network (re claim 1), the

optimized library including at least one optimized routine for interacting with a hardware entity,

the management module to forward the optimized library to one or more of the plurality of blade

servers (refer to claim 12).

As per claims 27, 30, refer to claims 3-2.

As per claim 28, Patankar discloses monitoring (e.g. modem 656, NW adapter 654 – Fig.

6 – Note: any NW adapter or modem reads on monitoring of packets transmission at socket

layer)

As per claim 29, Patankar discloses forwarding by blade servers (re claim 12 – Note: the

use of blade servers entails receiving in one server and forwarding to another because they are

disposed in rack, all intrinsically connecting with a master/management blade which is

responsible of the forwarding)

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

8.   Claims 4-11, 17-19, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Patankar et al., USPubN: 2005/0021971; further in view of Culter et al., USPubN: 2004/0243534

(hereinafter Culter).

As per claim 4, Patankar discloses receiving and determining that the optimization

library is suitable for the processing system based on a module type field (e.g. *unique identifier* –

para 0024, pg. 2; para 0028, pg. 3) within the receiving and running Operating System (e.g. para

0037-0038, pg. 4, para 0044, pg. 4); but does not specifically disclose receiving a optimization

header packet including the module type field. The transmission via an agent of table with

identification data supporting suitability of the received application for use in the target

Operating System (see Cutler: para 0039, pg. 4) --analogous to the table of Patankar-- is

disclosed in the use of ACPI's header by Culter; according to which, the unique identification

specifying compatibility for a given OS is provided in the header of the ACPI table (para 0056,

pg. 6; para 0110, pg. 9; para 0140, pg. 12). Based on the analogous approach as by Patankar

using a local agent/server performing database queries (e.g. Fig. 6; para 0022-0023, pg. 2; para

0047, pg. 4) and by Culter via interconnecting *small servers* and peripherals using a agent to

query database (e.g. Fig. 2, para 0032, pg. 3), it would be obvious for one skill in the art at the

time the invention was made to effect Patankar's transmission of table structures (Fig. 2) in a

form as taught by Culter's ACPI approach so to that they are communicated via NW protocol to

a communication agent in a structure format having a header including the above unique

identifier, because according to the well-known use of packet header in standard reliable network

protocol transmission, any packet header should be indicative of the content it includes to

facilitate processing; and by providing Culter's ACPI header identifying the nature of the import

table in the received packet, the receiving device would efficiently be able to identify the nature

of what is suitable for its operating system as taught by Culter (e.g. para 0007, 0011, pg. 1-2; Fig.

7-8) and this will be suitable with the efficient resources alleviating within reception verification by Patankar (para 0032, pg. 3; Fig. 4).

As per claim 5, Patankar discloses module type field includes a globally unique identifier (para 0024, pg. 2; para 0028, pg. 3 – Note: a unique identifier representing a whole table reads on a global ID as in "GUID") for determining that the optimization library is suitable for the processing system.

As per claim 6, based on the verification scheme of Patankar (e.g. Fig. 4) and the rationale as set forth for the header identification in claim 4, the step recited as ignoring other optimized libraries broadcast on the network if corresponding other optimization packets are determined to be unsuitable for the processing system based on the module type filed would also have been obvious for the same reasons as set forth above.

As per claim 7, Patankar discloses storing the optimized library to a nonvolatile storage (e.g. *loading* – para 0006, pg. 1) device of the processing system; but does not explicitly disclose inserting a entry into a pointer table of the processing system, the entry pointing to the optimized library. But based on the teachings by Culter's ACPI table, one such table is disclosed as having a structure with entry point definition (see para 0046, pg. 5; para 0056, pg. 6; para 0140, pg. 12) to a object being or code that is to be integrated into the device executing environment or its running OS. In view of the rationale of claim 4 as to integrate the ACPI approach by Culter into the import table by Patankar and on Patankar's use of DLL (BDLL - Fig. 5) to support a dynamic loading of received libraries into the target OS, it would have been obvious for one skill in the art at the time the invention was made to provide Patankar's OS extension of functionality via dynamic integration of upgrade code such that the dynamic loading of libraries is supported with

entry points extracted from the ACPI structure as by Culter for the same efficiency rationale as

set forth in claim 4.

As per claim 8, the table limitation recited as one of a Secondary System Description

Table ("SSDT") defined by an Advanced Configuration and Power Interface ("ACPI") and an

Extensive Firmware Interface ("EFI") configuration table is disclosed by Culter, hence this

limitation would have been obvious as set forth in claim 4.

As per claim 9, the loading of DLL into the application by Patankar (see Abstract, re

claim 7) in view of the rationale of claim 7 have rendered obvious the steps recited as: executing

an optimization extension bound to the application, the optimization extension to request a load

of the optimized library; querying the pointer table for the entry pointing to the optimized library

stored within the nonvolatile storage device; and loading the optimized library into system

memory of the processing system.

As per claim 10, the teaching recited as 'advertising the entry point for the optimized

routine of the optimized library to the application, the entry point referencing a location within

the system memory of the optimized routine' is included in the agent responsible of

communicating the table to the OS of the target device as set forth in claim 4; and by having a

header in the communicated packet as set forth in claim 4 via the teachings of Culter, the concept

of advertising is intrinsic to the network paradigm involving all peripherals or devices within the

network as taught by both Culter (Fig. 2, para 0032, pg. 3) and Patankar (Fig. 6; para 0022-0023,

pg. 2; para 0047, pg. 4) and thus enabling Patankar to dynamically extract the entry point of the

objects to be loaded as set forth in claim 7.

As per claim 11, Patankar discloses the optimized library is further loaded into a user

mode space of the processing system (Note: a dynamic loading of code – see *application ...*

being loaded - para 0044,pg. 4; para 0061, pg. 6 for an application reads on user space; Fig. 2,5).

As per claim 17, refer to the rationale set forth in claim 4 to address this identical subject

matter as recited in claim 4.

As per claims 18-19, refer to the corresponding rationale as set forth in claims 7, 9

respectively.

As per claim 22, refer to claim 4.

Conclusion

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tuan A Vu whose telephone number is (272) 272-3735. The

examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (571)272-3756.

The fax phone number for the organization where this application or proceeding is

assigned is (571) 273-3735 (for non-official correspondence - please consult Examiner before

using) or 571-273-8300 (for official correspondence) or redirected to customer service at 571-

272-3609.

Any inquiry of a general nature or relating to the status of this application should be

directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

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system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan A Vu
Patent Examiner,
Art Unit 2193
December 6, 2006